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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/900,251	07/06/2001	Sven Brueckner	ERIO11302/03	5963

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EXAMINER

SINES, BRIAN J

ART UNIT PAPER NUMBER

1743

DATE MAILED: 07/09/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/900,251

Applicant(s)

BRUECKNER ET AL.

Examiner

Brian J. Sines

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 27 April 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-55 is/are pending in the application.
- 4a) Of the above claim(s) 41-46 and 49-55 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-40, 47 and 48 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 06 July 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- 1) ☐ Certified copies of the priority documents have been received.
  - 2) ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## **DETAILED ACTION**

### ***Election/Restrictions***

Applicant's election of group 1 consisting of claims 1 – 40, 47 and 48 in the reply filed on 4/27/2004 is acknowledged. Because applicant did not distinctly and specifically point out the supposed errors in the restriction requirement, the election has been treated as an election without traverse (MPEP § 818.03(a)). Claims 41 – 46 and 49 – 55 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected invention, there being no allowable generic or linking claim.

### ***Drawings***

The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the walker must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted

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by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

***Claim Rejections - 35 USC § 112***

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 1 – 40, 47 and 48 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

The disclosure does not satisfy the enablement requirement under 35 U.S.C. 112, first paragraph in consideration of the following factors:

- (1) the breadth of the claims;
- (2) the nature of the invention;
- (3) the state of the prior art;
- (4) the level of skill of one of ordinary skill in the art;
- (5) the level of predictability in the art;
- (6) the amount of direction provided by the inventor;
- (7) the existence of working examples; and

(8) the quantity of experimentation needed to make or use the invention based upon the content of the disclosure. See *In re Wands*, 858 F.2d 731, 737, 8 USPQ2d 1400, 1404 (Fed. Cir. 1988) (see MPEP § 2164.01(a)).

Regarding (1) the breadth of the claims, since the specification does not adequately disclose a specific pump system, pheromone, walker apparatus, type of sensor system or control system, which would be correlated and organized to enable each of the elements to form a complete operative system, a person of ordinary skill in the art is not enabled to make and use the entire scope of the claimed invention without undue experimentation (see MPEP § 2164.08).

Regarding (2) the nature of the invention, which is intrinsically related to the state of the prior art, is the subject matter to which the invention pertains and the background required in determining the state of the prior art and level of skill of a person of ordinary skill in the art. The lack of prior art provides evidence to the high degree of unpredictability in the art. The specification fails to bridge the gap between the level of skill of one of ordinary skill in the art, as evidenced by the prior art, and the applicants claimed invention, in order for the claimed system to function properly. For example, it is unclear as to how the pump system, walker apparatus and associated sensor system are cooperatively associated, which would enable the claimed system to operate properly (see MPEP § 2164.05(a)).

Regarding (3) the state of the prior art, the lack of prior art pertaining to the subject matter of the application provides evidence for the lack of predictability in the art. Therefore, since the state of the prior art refers to the level of skill of a person of ordinary skill in the art, the specification as filed lacks sufficient direction or guidance required to meet the enablement requirement (see MPEP § 2164.05(a)).

Regarding (4) the level of skill of one of ordinary skill in the art, which refers to the skill of those in the art in relation to the subject matter to which the claimed invention pertains, the specification is deemed not enabling to a person skilled in the art, since the specification fails

to bridge the gap between the level of skill of one of ordinary skill in the art, as evidenced by the prior art, and the applicants claimed invention, in order for the claimed system to function properly (see MPEP § 2164.05(b)).

Regarding (5) the level of predictability in the art, due to the lack of knowledge in the state of the prior art pertaining to the nature of the invention, there is a high degree of unpredictability in the art (see MPEP § 2164.03).

Regarding (6) the amount of direction provided by the inventor, due to the lack of predictability in the prior art, the specification needs to provide more direction and guidance as to how to make and use the claimed invention. For example, it is unclear as to how the pump system and walker apparatus are cooperatively associated, which would enable the claimed system to operate properly (see MPEP § 2164.03).

Regarding (7) the existence of working examples, the invention is not disclosed in such a manner that one skilled in the art would be able to practice the claimed invention without undue experimentation, since the art area is relatively unpredictable and undeveloped. For example, it is unclear as to what kind of control system or sensor system is utilized. The specification provides no guidance or working example as to what constitutes the pump recited in the claimed system. How does the pump deposit the pheromone material? The specification provides no guidance or working example as to what constitutes a pheromone as recited in the claimed system. Is the pheromone a volatile chemical compound? The specification provides no guidance or working example as to what constitutes a walker as recited in the claimed system. How does the walker sense the deposited pheromone? Is the deposited pheromone sensed using a gas sensor or by using a spectrophotometer? (see MPEP § 2164.02).

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Regarding (8) the quantity of experimentation needed to make or use the invention based upon the content of the disclosure, since the applicants specification does not provide adequate direction and guidance in the practicing of the claimed invention, and since the art area is relatively unpredictable and undeveloped, the invention would require an undue amount of experimentation (see MPEP § 2164.06).

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 47 and 48 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 47 provides for the use of a multi-layer grid system to direct a walker through a multi-pheromone environment, but, since the claim does not set forth any steps involved in the method/process, it is unclear what method/process applicant is intending to encompass. A claim is indefinite where it merely recites a use without any active, positive steps delimiting how this use is actually practiced.

Claims 47 and 48 are rejected under 35 U.S.C. 101 because the claimed recitation of a use, without setting forth any steps involved in the process, results in an improper definition of a process, i.e., results in a claim which is not a proper process claim under 35 U.S.C. 101. See for example *Ex parte Dunki*, 153 USPQ 678 (Bd.App. 1967) and *Clinical Products, Ltd. v. Brenner*, 255 F. Supp. 131, 149 USPQ 475 (D.D.C. 1966).


*Conclusion*

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Haga et al. teach an insect robot which incorporates the use of a pheromone sensor. Feddema et al. teach a robotic vehicle, which is responsive to a scent sensor, such as for unexploded ordnance. Matsuda teaches a robot system and robot control device, which incorporates the use of a chemical sensor for gaseous materials. Mifune et al. teach a robot incorporating the use of a pheromone sensor for detecting termites. Stone et al. teach a mobile robot having an electronic nose sensor built into the robot's gripper arm.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brian J. Sines, Ph.D. whose telephone number is (571) 272-1263. The examiner can normally be reached on Monday - Friday (11:30 AM - 8 PM EST).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jill A. Warden can be reached on (571) 272-1267. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
Jill Warden  
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